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Design and delivery of a new graduate skills module

Day 1 – Parallel II (14.35-15.05)

For the 2012/13 academic year I was invited to design and deliver a new final year module aimed at developing certain skills that are needed when undertaking a research degree or entering employment but which may not be developed by traditional mathematics teaching. These included working in depth on a problem over an extended period, writing reports, communicating mathematical results to different audiences, working in collaboration with others and skills articulation. This built on some related skills development in earlier years of the degree programme and had a focus on reflecting on and understanding the skills developed.

The module comprised: formative and summative group activities, to develop real-world problem-solving and encourage understanding of how groups operate; individual mathematical assignments, to attempt to account for individual ability in the group mark; individual reflective essays, to encourage individual reflection and articulation; minutes of group meetings, to allow for assessment of group management; and, peer assessment of contribution. As the module progressed, students were given increasing freedom to manage their activities. This talk will discuss the design decisions in planning this module from scratch, which drew particularly on previous experience of running a group work module (reported at CETL-MSOR 2009) and on what I learned through my connection with the National HE STEM Programme. The talk will outline the implementation and an evaluation will attempt to identify what worked and what should be changed. The issue of uneven contribution will be discussed.